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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,048	06/26/2001	Harold Kutz	CYPR-CD00231	4180

7590 07/27/2005  
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Two North Market Street, Third Floor  
San Jose, CA 95113

EXAMINER

WOO, STELLA L

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/893,048	<b>Applicant(s)</b> KUTZ ET AL.	
	<b>Examiner</b> Stella L. Woo	<b>Art Unit</b> 2643	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-2 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Malcolm, Jr. et al. (US 6,373,954, hereinafter "Malcolm").

Regarding claims 1-2, Malcolm discloses a microcontroller chip (a single chip audio system 100; Figure 1A), comprising:

a processor (microcontroller 103);

an array of configurable circuit blocks configured to perform a circuit function (circuit blocks on chip 100 are configured to output analog audio signals (col. 1, lines 40-58); and

an on-chip analog amplifier (elements labeled as "GAIN" which output analog signals from output mixers 115a and 115b to left and right external speakers; see Figure 1A; col. 12, lines 23-25).

Regarding claim 8, Malcolm provides for analog circuit blocks (elements which output to A/D converters 111 and elements which output from D/A converters 110) and digital circuit blocks (elements which output to D/A converters 110 and elements which output from A/D converters 111).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-6, 11-15, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malcolm in view of Hirose et al. (US 5,900,780, hereinafter "Hirose").

Malcolm differs from claims 3-7, 11-15, 18 in that it does not specify a switchable current source or a tristate CMOS analog amplifier. However, Hirose teaches the advantages of using a tristate CMOS operational amplifier including the low power consumption, small distortion in output waveform, and high output drive capacity (col. 1, lines 12-30) such that it would have been obvious to an artisan of ordinary skill to incorporate such use of a CMOS amplifier, as taught by Hirose, within the signal chip audio system of Malcolm for providing a low-power, low-distortion, high output analog amplifier function.

Regarding claims 3, 13, and 18, Hirose provides current being selectively supplied from current sources I1, I2, I3, I4, I5 and I6 (Figures 2 and 5).

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Malcolm in view of Billings (US 5,248,843).

Malcolm differs from claim 7 in that it does not specify that the external speaker is a 32-ohm speaker. However, Billings teaches the well known use of a 32 ohm speaker which is controlled by an sound chip (col. 6, lines 1-8) such that it would have been obvious to an artisan

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of ordinary skill to incorporate select a 32 ohm speaker, as taught by, as the speaker which is driven by the amplifier of Malcolm.

6. Claim 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malcolm in view of Weber et al. (US 6,850,117, hereinafter "Weber").

Malcolm differs from claims 9-10 in that it does not specify a wirebond pad. However, Weber teaches the desirability of providing output connections on a chip via bond pads (bond pads 110 and 112 at Figure 5C) such that it would have been obvious to an artisan of ordinary skill to incorporate such use of bond pads, as taught by Weber, within the chip system of Malcolm for providing output connections to the loudspeaker.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Malcolm and Hirose, as applied to claim 11 above, and further in view of Billings for the same reasons applied to claim 7 above.

8. Claims 17, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Malcolm and Hirose, as applied to claim 11 above, and further in view of Weber for the same reason applied to claims 9-10 above.

#### ***Response to Arguments***

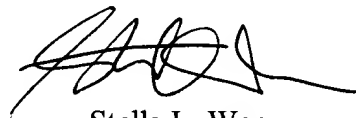
9. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella L. Woo whose telephone number is (571) 272-7512. The examiner can normally be reached on Monday-Tuesday, Thursday-Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Stella L. Woo', with a stylized flourish extending to the right.

Stella L. Woo  
Primary Examiner  
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